

**Nabeel Ahmed Khan**  
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## **Experience**

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**Assistant Professor (Contractual)**

**August 2022-Present**

**Guest Faculty**

**November 2021-July 2022**

- Teaching undergraduate and postgraduate students
- Supervising M. Tech. Dissertation
- Administrative responsibilities

## **Education**

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**PhD (Indian Institute of Technology Delhi)**

**January 2016-August 2022**

- Structural Engineering group (Department of Civil Engineering)
- Thesis Topic: Optimization of Building Envelope parameters for simultaneous thermal, visual, and acoustic performance, in tropical climates.
- Thesis Supervisor: Prof. Bishwajit Bhattacharjee

**M. Tech. (Indian Institute of Technology Roorkee)**

**July 2013-July 2015**

- Specialization in Structural Dynamics
- CGPA: 8.03/10
- Project Topic: Seismic Performance of Eccentrically Braced Frames
- Project Supervisor: Prof. Yogendra Singh

**B. Tech. (Jamia Millia Islamia University)**

**July 2009-June 2013**

- Civil Engineering
- CPI: 8.61/10

## **Research Experience**

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Department of Civil Engineering, Jamia Millia Islamia:

- Carried out a study to evaluate the performance of data driven models for prediction of sky luminance distribution in Indian tropical climate.
- Supervised two M. Tech. thesis on energy performance evaluation of seismic retrofitting techniques.

Department of Civil Engineering, Indian Institute of Technology Delhi:

- Worked on the project titled “**Optimization of Building Envelope parameters for simultaneous thermal, visual and acoustic performance, in tropical climates**” to achieve thermal, visual and acoustic comfort for the occupants inside the building through passive design. The simulation models for thermal heat flow, daylight admittance and sound transmission were coupled with a multi objective optimization algorithm (NSGA-II) for achieving optimal building envelope parameters at the early design stage.

- Carried out study to validate the Perez and CIE sky models for daylighting design in Indian tropical sky conditions. Proposed a framework to identify CIE design skies for passive window design Indian climatic condition.
- Studied the interaction between thermal and acoustic performance during building simulation optimization of building envelope parameters.

Department of Earthquake Engineering, Indian Institute of Technology Roorkee:

- Worked on the project to validate the Response reduction factor for earthquake resisting eccentrically braced steel frames for the Indian Design code using the procedure outlined by FEMA P695 for Quantification of Building Seismic Performance Factors.

## **Teaching Experience**

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- Working as an Assistant Professor (Contractual basis) in department of civil engineering, Jamia Millia Islamia, New Delhi from 18/08/2022 to present.
- Taught the following UG and PG courses related to structural engineering along with M. Tech. thesis supervision.
  - Advanced structural analysis
  - Design of tall buildings
  - Basics of civil engineering
  - RCC design
- TA in following online MOOC courses
  - Energy Efficiency acoustics and daylighting in Buildings
  - Functional Planning, Building Services and Maintenance Management of Buildings
  - Sustainable materials and green buildings
  - Concrete Technology
- M. Tech dissertations guided:
  - Sufiyan Ahmad Azhar (2023), Topic “Energy Performance Evaluation Of Seismic Retrofitting Techniques”
  - Mohd Sharique (2024) Topic “Integrated seismic and energy retrofitting of existing buildings ”

## **Awards and Fellowships**

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- Secured an All India Rank of 316 and 99.6 percentile score in Graduate Aptitude Test in Engineering exam in the discipline of civil engineering
- Awarded GATE fellowship from the year 2013-2015
- Worked on the Project funded by Indo-French Centre for Promotion of Advanced Research in Collaboration with Saint Gobain Research Institute, India on the same topic as my PhD research work, from January 2016 to March 2018.
- Awarded Institute Assistantship from Ministry of human resources and development, India from March 2018 to January 2021.

## Publications

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1. Khan, N. A., Bhattacharjee B. & Kashyap K. (2025). *Identifying the interplay between thermal, environmental and noise insulation performance of building envelopes in Indian tropical climates*. **Building and Environment**. Vol. 270, 112504 (SCI indexed journal)
2. Khan N. A. (2024) *Performance assessment of Data driven models for sky luminance prediction in Indian Tropical Climate*, **Lighting Research & Technology**, Sage Journals (Accepted, In press) (SCI indexed journal)
3. Azhar, S. A., Khan N.A. (2024) *Integrated seismic and energy performance assessment of retrofitting techniques: A framework and case study for Indian Tropical climatic region*, **Journal of The Institution of Engineers (India): Series A**, Springer, Vol 105, Pg 343-356 (Scopus indexed journal)
4. Khan N. A., Bhattacharjee B. (2023) *Development of design guidelines for thermal, visual, and noise insulation performance of building envelope of low-rise commercial office buildings in the Indian tropical climate*, **Sadhana** 48:125. (SCI indexed journal)
5. Khan N., Bilal A. (2022) Seismic Performance of Eccentrically Braced Frames, **Sigma Journal of Engineering and Natural Sciences** Vol. 41 (6) (WOS and Scopus indexed journal)
6. Khan, N. A., Bhattacharjee B. (2021). *Thermal and Noise Insulation Performance Interaction of Building Envelope during Building Simulation Optimization in Tropical Climates*. **Building and Environment** 200(May):107948. (SCI indexed journal)
7. Khan N. A., Bhattacharjee B. (2021) *A methodology for simultaneous optimization of the thermal, visual, and acoustic performance of building envelope*, **Journal of Architectural Engineering, ASCE**, DOI: 10.1061/(ASCE)AE.1943-5568.000047. (Scopus and WOS indexed journal)
8. Khan N. A., Malik P., Bhattacharjee B. (2020) *Identifying the design skies for Indian Tropical Climatic Conditions*, **Current Science**, Vol. 119, No. 3, (SCI indexed journal)
9. Khan N., Bhattacharjee B. (2017) *Validation of Cooling Load Calculation using Transmission Matrix Method*, **International Conference on Advances in Construction Materials and Systems**, Vol.4. Organised by RILEM. (International Conference publication)

## Skills and Software Knowledge

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MATLAB, Python, IES VE, SAP 2000, Microsoft Excel, C++, high performance computing

## Referees

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**Prof. Yogendra Singh**, Department of Earthquake Engineering, Indian Institute of Technology Roorkee, India. Email: [yogenfeq@iitr.ac.in](mailto:yogenfeq@iitr.ac.in) Phone: +91-01332-285534

**Prof. Farhan Ahmed Kidwai**, Professor and Head, Department of Civil Engineering, Jamia Millia Islamia, New Delhi. Email: [fkidwai@jmi.ac.in](mailto:fkidwai@jmi.ac.in) +91-11-26315227